

# DYNAMIC UNBALANCE COMPENSATION SYSTEM AND METHOD

## ABSTRACT OF THE DISCLOSURE

A dynamic unbalance compensation system (is provided) that compensates for dynamic unbalance of a rotating assembly on a vehicle, such as a spacecraft, to compensate for the presence of a dynamic unbalance moment. The system includes a vehicle, such as a spacecraft, a rotational assembly mounted on the vehicle and rotatable about an axis of rotation relative to the vehicle, and one or more momentum devices mounted on the rotational assembly and generating a momentum vector component perpendicular to the axis of rotation. The one or more momentum devices generate a compensation torque during spinning of the rotational assembly so as to compensate for dynamic unbalance of the rotational assembly.

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